



GAP type Thermal-Resistant Aluminum Alloy Conductor Steel Reinforced Construction

TAL Grade Aluminum-Zirconium wires, concentrically stranded about a steel core having a small gap between the Steel core & thermal-resistant aluminum alloy layer. These combination offers best Mechanical as well as Electrical Characteristics. Galvanized Extra High Strength Steel (EST); or aluminum-clad Extra High Strength Steel (AW) . Additional corrosion protection is achieved as Heat Resistant Grease is applied in Between GAP.

Values based on following Specifications:

- Thermal-resistant aluminium alloy wire for overhead line conductor IEC 62004
- B857 Shaped Wire Compact Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Supported
- Zinc-coated steel wires for stranded conductors IEC 888 & ASTM B 609

Applications

- Double the current carrying capacity for the same size conductor.
- No modification or reinforcement required for existing towers.
- Low cost and short construction period.

Conductor Size (mm ²)	Stranding		Min. Breaking Load (kgf)	Reference								
	(No/mm)			Cross-Sectional Area (mm ²)			Overall Diameter (mm)		Weight (kg/km)	DC Resistance (Ω/KM)	Modulus of Elasticity (kgf/mm ²)	Coefficient of Linear Expansion (10 ⁻⁶ /deg)
	TAL	EST		TAL	EST	Total	EST	GAP				
185	24/TW	7/2.0	6361	184.5	21.99	206.49	16.00	17.80	700.3	0.1600	20989	11.50
240	25/TW	7/2.4	8848	247.9	31.67	279.57	7.20	20.60	955.9	0.1190	20989	11.50
265	19/3.1 & 10/TW	7/2.8	10958	265.3	43.11	308.41	8.40	22.60	1098.0	0.1110	20989	11.50
310	16/3.9 & 10/TW	7/2.8	11600	313.1	43.11	356.21	8.40	24.40	1227.0	0.0941	20989	11.50
370	17/4.15 & 12/TW	7/3.8	18298	368.2	79.38	447.58	11.40	27.30	1666.0	0.0798	20989	11.50
410	15/4.6 & 10/TW	7/3.0	14077	411.9	49.48	461.38	9.00	27.60	1557.0	0.0714	20989	11.50
520	42/TW	7/3.0	15586	518	49.48	567.48	9.00	29.00	1856.0	0.0570	20989	11.50
620	30/TW	7/3.2	18175	615.7	56.29	671.99	9.60	31.50	2179.0	0.0478	20989	11.50